

REMARKS

Applicant is in receipt of the Office Action mailed January 12, 2006. Claim 10 has been cancelled. Claims 1-3, 5-7, 11-23, 25, and 27-48 remain pending in the application. Reconsideration of the case is earnestly requested in light of the following remarks.

35 U.S.C. §103 Rejections

Claims 1-3, 5-7, 10-13, 15-21, 23, 25, and 27-48 were rejected under 35 U.S.C. 103(a) as being unpatentable over “Compumotor, Motion Builder Start-Up Guide & Tutorial” (hereinafter “Compumotor”) and EP Publication No. 0510514 A1 to Oka et al. (hereinafter “Oka”). Applicant respectfully traverses this rejection.

Claim 1 recites in pertinent part, “automatically generating a graphical program implementing the specified sequence of motion control operations, wherein automatically generating the graphical program comprises automatically including a plurality of nodes in the graphical program and automatically generating a plurality of connections between the nodes, wherein the interconnected nodes visually indicate functionality of the graphical program.” Compumotor and Oka, taken either singly or in combination, do not teach these features of claim 1.

The Examiner asserts that Compumotor teaches automatically generating a graphical program implementing the specified sequence of motion control operations. As argued in the response to the previous Office Action, Applicant respectfully disagrees. As described on p. 12 of the specification,

In the present application, the term “graphical program” or “block diagram” is intended to include a program comprising graphical code, e.g., two or more interconnected nodes or icons, wherein the interconnected nodes or icons may visually indicate the functionality of the program. The nodes may be connected in one or more of a data flow, control flow, and/or execution flow format. The nodes may also be connected in a “signal flow” format, which is a subset of data flow. Thus the terms “graphical program” or “block diagram” are each intended to include a program comprising a plurality of interconnected nodes or icons which visually indicate the functionality of the program. (*Emphasis added*)

Compumotor does not teach or suggest automatically generating a graphical program. In Compumotor, the user manually creates a graphical program. The user manually selects various icons or nodes and includes and positions them in the graphical program (see p. 6 and pp. 70-87). Thus, the icons or nodes in the graphical program are not automatically included in the graphical program, but instead are included in the graphical program in response to user input requesting their inclusion. In contrast, claim 1 recites that automatically generating the graphical program comprises “automatically including a plurality of nodes in the graphical program”.

Also, in Compumotor, the user manually creates connections between the icons or nodes. For example, p. 87 illustrates an example where a user creates a connection between two icons by using a mouse device to click on the output side of one icon and the input side of the other icon. Thus, the connections between icons in the graphical program are not automatically generated, but instead are generated in response to user input specifying the connections. In contrast, claim 1 recites that automatically generating the graphical program comprises “automatically generating a plurality of connections between the nodes”.

Thus, Applicant respectfully submits that Compumotor does not teach automatically generating a graphical program, i.e., a program comprising a plurality of interconnected nodes which visually indicate the functionality of the program, as asserted by the Examiner. Instead, the user manually creates the graphical program.

Applicant also respectfully disagrees with the Examiner’s characterization of the Oka reference that, “Oka discloses a similar invention including the automatic generation of a graphical program with an objective of alleviating user interaction for creating the graphical program.”

The Oka invention relates to analyzing a series of processing programs and automatically drawing a flow chart which graphically represents the processing outline (Col. 1, lines 1-14; Col. 2, lines 3-12). A flow chart is not at all the same as a graphical program. A graphical program is an executable program, whereas a flow chart is not an executable program at all, but is merely a human-readable diagram which describes a process, e.g., describes a process performed by an executable program. Oka does not teach automatically including a plurality of nodes in a graphical program or automatically

generating a plurality of connections between the nodes in the graphical program, as recited in claim 1.

Thus, for at least the reasons given above, Applicant respectfully submits that the prior art references, taken either singly or in combination, do not teach the subject matter recited in claim 1. Applicant thus submits that claim 1, and the claims dependent thereon, are allowable over the cited art. Inasmuch as the other independent claims recite similar limitations regarding the automatic generation of a graphical program, Applicant also submits that the other independent claims, and those claims respectively dependent thereon, are also allowable over the cited art.

35 U.S.C. §103 Rejections

Claims 14 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Compumotor and Oka. Applicant respectfully traverses these rejections.

Applicant reminds the Examiner that if an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is non-obvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicant thus respectfully submits that since the independent claims have been shown above to be patentably distinct and non-obvious over the prior art, dependent claims 14 and 22 are also patentably distinct and non-obvious, for at least this reason.

Applicant also submits that claims 14 and 22, and other dependent claims, recite further distinctions not taught or suggested by the cited references, taken either singly or in combination. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

In light of the foregoing amendments and remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-54200/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,



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